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10/567,050	02/02/2006	Todd Martin Beazley	PUO30191	2427

24498 7590 06/19/2007	EXAMINER	
JOSEPH J. LAKS, VICE PRESIDENT	CHAWAN, SHEELA C	
THOMSON LICENSING LLC		
PATENT OPERATIONS	ART UNIT	PAPER NUMBER
PO BOX 5312		
PRINCETON, NJ 08543-5312	2624	

MAIL DATE	DELIVERY MODE
06/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>15 March 2007</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-25</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-25</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   Applicant's amendment filed on 3/15/07 has been entered and made of record.

Claims 1-25 are pending in the application.

Response to Arguments

2.   Applicant's arguments, see page 6 -7, of the remarks, filed 3/15/07, 2006 with

respect to rejection of claims 1-25 under 103(a) have been fully considered and are

persuasive. Therefore, 103(a) rejection of claims 1-25 has been withdrawn. However,

upon further consideration, a new ground(s) of rejection is made in view of Alderson et

al., (US. 6,973,218 B2).

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under

section 122(b), by another filed in the United States before the invention by the

applicant for patent or (2) a patent granted on an application for patent by another filed

in the United States before the invention by the applicant for patent, except that an

international application filed under the treaty defined in section 351(a) shall have the

effects for purposes of this subsection of an application filed in the United States only if

the international application designated the United States and was published under

Article 21(2) of such treaty in the English language.

Claims 1 - 3 are rejected under 35 U.S.C. 102(e) as being anticipated by

Alderson et al., (US. 6,973,218 B2).

As to claim 1, Alderson discloses a method use in removing noise from image

data (abstract), the method comprising:

receiving image data representing an image (fig 4, element 404, and fig 5,

element 504, acquiring frame of image data, column 6, lines 60- 67,column 7, lines 1- 7,

column 10, lines 10- 39);

filtering the received image data to remove noise therefrom and to provide

filtered image data (fig 5, element 516 filtering the noise).

displaying where the filtering is being performed on the received image data (fig

5, element 518 corresponds to display image, as filtering is being done).

As to claim 2, Alderson discloses the method further comprising the step of

displaying the filtered image data (fig 5, element 516 and 518).

As to claim 3, Alderson discloses the method further comprising the step of

compressing the filtered image data to provide compressed filtered (fig 5, element 512)

image data (column 1, lines 63- 67, column 2, lines 1-2, column 10, lines 10- 39).

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
>
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
>
> the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 4 -6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alderson et al., (US. 6,973,218 B2), as applied to claims 1-3 above and further in view of Tan et al., (US.6, 697, 534 B1).

Regarding claim 4 Alderson discloses dynamic range compression. Alderson is silent about specifics details of transmitting the compressed filtered image data to an endpoint.

Tan discloses a sharpening an image and, more particularly, to adaptively sharpening local image content of an image. The system comprises of:

the step of transmitting the compressed filtered image data to an endpoint (column 4, lines 46- 67, column 5, lines 1-67, column 6, lines 1-20).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Alderson to include the step of transmitting the compressed filtered image data to an endpoint. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Alderson by the teaching of Tan in order to provide a method of sharpening an image includes the following. A crispening parameter is adaptively computed for a local region of a captured image based, at least in part, on a measure of the local contrast and the local brightness (as suggested by Tan at column 1, lines 40-44).

As to claim 5, Tan discloses the method further comprising the step of, in response to the displaying step, adjusting filter parameters used in the filtering step (column 4, lines 46- 67).

As to claim 6, Tan discloses the method further comprising the step of storing the adjusted filter parameters for future reference in filtering the image data (column 4, lines 46- 67, column 5, lines 37- 42, 64-67, column 6, lines 1-20).

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 7, 9, 10, 23 and 24, are rejected under 35 U.S.C. 103(a) as being unpatentable over Alderson et al., (US. 6,973,218 B2), view of Tan et al., (US.6, 697, 534 B1), as applied to the claims 1- 6 above and further in view of Chun (US. 5,949,916).

Regarding claims 7 and 9 Alderson discloses dynamic range compression. Alderson is silent about specifics details of Lee filters.

Chun discloses an automatic regressive (AR) filter and a filtering method thereof, and particularly, to an AR filter which functions as an adaptive filter in a still region of an image and outputs an observed signal unaltered in a moving region of the image in order to remove a blurring phenomenon at the edge of a moving target in that image. The system comprises of: the method wherein the filtering is performed in accordance with a Lee filter (column 1, lines 33- 35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Alderson to include Lee filter. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Alderson by the teaching of Chun in order to provide high performance noise removal. Also, the edge of the moving target of the moving picture can be preserved well (as suggested by Chun at column 8, lines 5 - 8).

As to claim 10, Chun discloses the method, wherein the control signal is a smoothing to control signal of the Lee filter (column 1, lines 33-35).

As to claim 23, Chun discloses the apparatus further comprising a multiplexer coupled to the filter, video converter and the display, wherein the multiplexer is responsive to a mode control signal for coupling either the filtered image data or the video signal to the display (column 7, lines 41-67, column 8, lines 1-8).

As to claim 24, Chun discloses the apparatus wherein the filter is a Lee filter and the control signal is a measure of a local variance of at least a portion of the image data (column 1, 27- 35, column 2, lines 41- 48, column 4, lines 46- 58).

6.   Claims 8, 11- 22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alderson et al., (US. 6,973,218 B2), as applied to claims 1-6, 7, 9,10, 23, 24 and 25 above and further in view of Tan et al., (US.6, 697, 534 B1).

As to claim 8 Alderson discloses a method for use in processing image data, the method comprising:

filtering image data to provide filtered image data (fig 4, element 404, and fig 5, element 504, acquiring frame of image data, column 6, lines 60- 67,column 7, lines 1- 7, column 10, lines 10- 39);

displaying an image representative of the video signal displaying where the filtering is being performed on the received (fig 5, 516 filtering the noise) image data (fig 5, element 518 corresponds to display image, as filtering is being done).

wherein the displayed image indicates where the image data is being filtered (fig 5, element 518 corresponds to display image, as filtering is being done).

Alderson is silent converting a control signal used in the filtering to a video signal.

Tan discloses a sharpening an image and, more particularly, to adaptively sharpening local image content of an image. The system comprises of:

converting a control signal used in the filtering to a video signal (fig 4, column 9, lines 47- 67, column 10, lines 1-16).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Alderson to include converting a control signal used in the filtering to a video signal. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Alderson by the teaching of Tan in order to provide a method of sharpening an image includes the following. A crispening parameter is adaptively computed for a local region of a captured image based, at least in part, on a measure of the local contrast and the local brightness (as suggested by Tan at column 1, lines 40-44).

As to claim 11, Tan discloses the method wherein the converting step converts the control signal to a monochrome video signal (fig 4, element 430, column 8, lines 7-67).

As to claim 12, Tan discloses the method wherein the converting step converts the control signal to a monochrome video signal (fig 4, element 430, column 8, lines 7-67).

As to claim 13, Tan discloses the method wherein the image is a black and white representation of edge activity in the filtered image data (fig 6, column 2, lines 62-67, column 3, lines 1-42).

As to claim 14, Tan discloses the method wherein the control signal represents a statistical function (fig 6, column 8, lines 7-50, column 9, lines 14-67, column 10, lines 1-19).

As to claim 15, Tan discloses wherein the statistical function is a local variance of at least a portion of the image data (fig 6, column 8, lines 7-50, column 9, lines 14-67, column 10, lines 1-19).

As to claim 16, Tan discloses the method, wherein the portion is a group of pixels of the image data (fig 4, column 9, lines 14-67).

As to claim 18, Tan discloses the method wherein the adjusting step compares an average brightness level of the displayed image to a predefined average brightness level (column 8, lines 7-50).

As to claim 20, Tan discloses the server wherein the display also shows the filtered image data (column 5, lines 16-46).

As to claim 17, see the rejection of claim 1 and 8.

As to claim 19, see the rejection of claim 1 and 8.

As to claim 21, see the rejection of claim 1 and 8.

As to claim 22, see the rejection of claim 1 and 8.

As to claim 25, see the rejection of claim 1 and 8.

Contact Information

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Sheela C Chawan whose telephone number is. 571-

272-7446. The examiner can normally be reached on Monday - Thursday 7.30 - 6.00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Eileen Lillis can be reached on 571-272-6928. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Sheela Chawan
Patent Examiner
Group Art Unit 2624
June 4, 2007

SHEELA CHAWAN
PRIMARY EXAMINER